

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

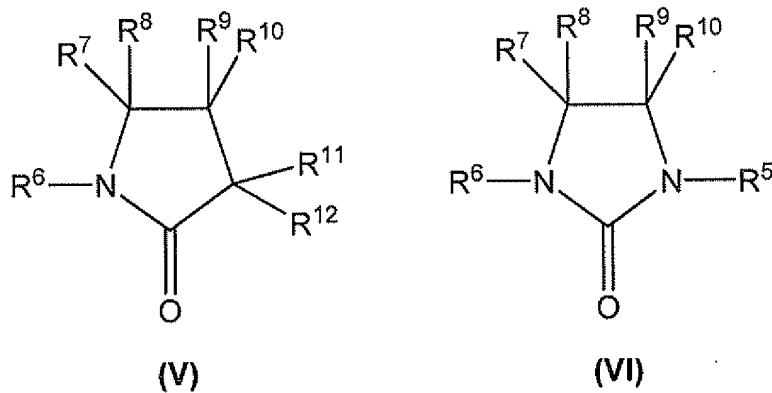
Listing of Claims:

1. **(Currently amended)** An ink composition comprising:
 - from about 0.1 to 5% by weight of a water-soluble polyurethane, wherein the water-solubility limit of the water-soluble polyurethane is ~~greater than about at least~~ 0.1% at 25°C and wherein the amount of water-soluble polyurethane present in the ink composition is fully dissolved;
 - from about 0.1 to 15% by weight of a 1,2-alkyldiol having 5-9 carbon atoms; and
 - from about 0.5 to 6% by weight of a pigment.
2. **(Original)** The ink composition of claim 1 wherein the pigment is present at a concentration in the range of about 2 to 4% by weight, the water-soluble polyurethane is present at a concentration in the range of about 0.5 to 3% by weight and the 1,2-alkyldiol is present at a concentration in the range of about 1 to 8% by weight.
3. **(Original)** The ink composition of claim 1 wherein the water-solubility limit of the water-soluble polyurethane is greater than about 5% at 25°C.
4. **(Original)** The ink composition of claim 1 wherein the water-soluble polyurethane has a weight average molecular weight of less than about 15,000 Da.
5. **(Original)** The ink composition of claim 1 wherein the water-soluble polyurethane has an acid number in the range of about 30 to 70.
6. **(Original)** The ink composition of claim 1 wherein the 1,2-alkyldiol is 1,2-pentanediol.
7. **(Original)** The ink composition of claim 1 wherein the 1,2-alkyldiol is 1,2-hexanediol.

8. **(Original)** The ink composition of claim 1 further comprising a water-miscible organic co-solvent or a mixture of water-miscible organic co-solvents.

9. **(Original)** The ink composition of claim 8 wherein the water-miscible organic co-solvent or mixture of water-miscible organic co-solvents is present at a concentration in the range of about 0.5 to 20%.

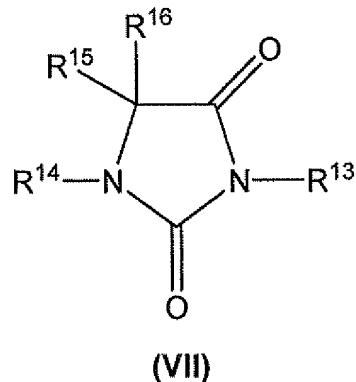
10. **(Original)** The ink composition of claim 8 wherein the water-miscible organic co-solvent is a 2-pyrrolidone derivative having formula (V) or an imidazolidinone derivative having formula (VI):



wherein R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹ and R¹² are each independently selected from the group consisting of hydrogen and C₁-C₆ aliphatic groups; and

wherein any C₁-C₆ aliphatic groups are optionally substituted with one or more hydroxyl groups.

11. **(Original)** The ink composition of claim 8 wherein the water-miscible organic co-solvent is a hydantoin derivative having formula (VII):



wherein R¹³, R¹⁴, R¹⁵ and R¹⁶ are each independently selected from the group consisting of hydrogen and C₁-C₆ aliphatic groups; and

wherein any C₁-C₆ aliphatic groups are optionally substituted with one or more hydroxyl groups.

12. **(Original)** The ink composition of claim 8 wherein the mixture of water-miscible organic co-solvents comprises a mixture of 2-pyrrolidone and di-(2-hydroxyethyl)-5,5-dimethylhydantoin.

13. **(Original)** The ink composition of claim 1 having a viscosity in the range of about 1.5 to 6 cps and a surface tension in the range of about 18 to 45 dynes/cm.

14. **(Original)** The ink composition of claim 1 having a viscosity in the range of about 2 to 3.4 cps and a surface tension in the range of about 21 to 37 dynes/cm.

15. **(Original)** The ink composition of claim 1 having a pH in the range of about 8 to 10.

16. **(Original)** The ink composition of claim 1 having a pH in the range of about 8.5 to 9.5.

17. **(Original)** The ink composition of claim 1 with the proviso that no surfactant is present in the ink composition.
18. **(Original)** A process for printing an image on a print medium comprising applying thereto an ink according to claim 1, by means of an ink-jet printer.
19. **(Original)** The process of claim 18 wherein the print medium is a plain paper or a coated paper.
20. **(Original)** An ink-jet printer cartridge containing an ink according to claim 1.
21. **(Currently amended)** The ink composition of claim 1 wherein the water-solubility limit of the water-soluble polyurethane is ~~greater than about~~ at least 10% at 25°C.
22. **(Previously presented)** The ink composition of claim 1 wherein the water-soluble polyurethane has a weight average molecular weight in the range of about 4,000 to 10,000 Da.
23. **(Previously presented)** The ink composition of claim 1 wherein the water-soluble polyurethane has a weight average molecular weight in the range of about 4,000 to 7,000 Da.
24. **(Previously presented)** The ink composition of claim 1 wherein the water-soluble polyurethane has an acid number in the range of about 40 to 60.